

A Comparison of the Effects of Reading Aloud and Silent
Reading on Comprehension Among Chinese EFL Learners

by

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A Thesis

Presented to the

DIVISION OF ENGLISH

OF THE GRADUATE SCHOOL

THE CHINESE UNIVERSITY OF HONG KONG

In Partial Fulfillment of the

Requirements for the Degree

MASTER OF PHILOSOPHY

(TESL)

JULY 1986

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ACKNOWLEDGEMENTS

I wish, first of all, to acknowledge my indebtedness to Xi'an Foreign Languages Institute for its grant of two years of leave which made it possible for me to pursue my studies at The Chinese University of Hong Kong. I am especially pleased to acknowledge the assistance provided to me in so many ways by the Division of English of the Graduate School of CUHK. I am also grateful to the Scholarship Committee of the English Department of CUHK and, particularly, to the Trustees of Lingnan University for the financial support they provide, which has made this study possible.

I would like to express my special gratitude to Dr. Margaret van Naerssen, my supervisor, for her patient guidance throughout the entire process of this study, which enabled me to finally succeed in completing this study, and for her enlightening teaching and comments, from which I benefited a great deal. I also wish to thank Dr. Y.S. Cheung for his corrections and suggested improvements. My thanks should also go to Professor Robert Kaplan, who gave me warmhearted help, encouragement and valuable suggestions which made me aware of a number of problems that would otherwise have been overlooked.

I express my sincere thanks to all those who helped me with my study.

ABSTRACT

The purpose of this study was to investigate the effects of reading aloud and silent reading on comprehension among Chinese EFL readers. The prevailing assumption in China that reading aloud betters comprehension for Chinese foreign language readers was tested in this study.

An experiment was conducted with sixty randomly selected Chinese EFL readers from a high school and a language institute, each twenty of which represented readers at one level of reading proficiency. The subjects at each level were given a set of reading comprehension passages followed by a certain number of multiple choice questions for comprehension. Each subject was tested once under each of the two reading conditions, that is reading aloud vs silent reading. Three cloze tests were provided for the subjects at each level respectively as an independent measurement of the subjects' proficiency.

The results of this study show that there exists no significant difference between the effects of reading aloud and silent reading on comprehension among the subjects used in this study at all three levels of proficiency, which means that reading aloud should not be regarded as a superior mode of reading to silent reading for comprehension for Chinese EFL readers. This study also provided some suggestions for the possible improvement on the reading instructions in high schools as well as in languages institute.

Chapter 1

Introduction

Reading aloud used to be a very common practice for Chinese to learn Chinese language. At present, this age long tradition of learning is not without its prevalence among Chinese EFL learners in high schools as well as in colleges. A questionnaire investigation shows that over ninety percent of language students in a representative languages institute do spend some time, which ranges from ten minutes to forty minutes, on reading aloud every day (Guo, 1985). In almost all the foreign languages institutes and universities that have English departments, approximately thirty minutes time is allotted from the time table to morning reading aloud. The assumption behind this is that reading aloud not only helps train students to read a foreign language with proper intonation and pronunciation, it also betters comprehension. The focus of this study is to investigate the validity of this latter assumed value for reading aloud. The question is: Is it true or is it simply a misconception that reading aloud betters comprehension for Chinese EFL learners?

Reading aloud has a long history both in China and in Western countries. Chinese scholars did a lot of reading aloud on classics and this

mode remained the norm of reading for a long time. In the western countries, it is observed by Kelly (1969) in his history of language teaching that there exists little evidence of an awareness before the twentieth century of the difference between oral and silent reading. During the Renaissance and until the nineteenth century, reading continued to be regarded as an oral activity, which, says Kelly, 'was usually taken as propaedeutic to memorization work, an attitude which reached its zenith during the eighteenth century'. It was the social, cultural and technical changes starting from the nineteenth century that altered what the term 'reading' connoted. (Pugh, 1975) Most adult reading tasks themselves changed in character as a result of increased literacy, the flourishing of private reading in public places, such as libraries and offices, and the greatly increased volume and variety of reading matter, such as newspapers and magazines. The present century has seen silent reading become the norm.

Now, reading aloud, though rejected as the norm of reading, can still have many purposes (Ammon, 1974). Educationally, students can benefit by reading aloud prose, poetry or drama. There are many benefits in choral reading --- reading aloud by a group. It leads to a better appreciation of literature and to improved pronunciation, phrasing,

interpretation, rhythm and flexibility. Reading aloud can also, as many scholars believe, help memorization. Besides, reading aloud has diagnostic values. It helps in testing for fluency and accuracy in reading. But the general purposes of reading aloud seem to end here.

There are several positions about the role of reading aloud in foreign language teaching. In stating the position of reading aloud in teaching English as a foreign language, Lado (1964) regards reading aloud as an artistic skill. In his view, reading aloud serves as an effective practice and test of a student's ability to read in general. In reading aloud, the reader may come across written sentences he has never spoken but whose elements he can speak. Thus this practice becomes genuine reading for he has to grasp the patterns he is to speak at some normal speed from the incomplete clues of their written representation. West (1955) takes an extreme attitude towards reading aloud in foreign language teaching. He castigates the practice of reading aloud, saying that it is not only a useless exercise, but also a harmful practice in fact, because it tends to produce just that evil which the teacher is most anxious to prevent,--- parrot talking without thinking of any meaning. In China, Lu (1961) states that reading aloud can have two important functions, one is to help memorization, the other is to better

comprehension.

We are now at the point that increasing comprehension is the main concern, and we want to know which mode of reading, reading aloud or silent reading, is more superior or if both methods have equal value for Chinese EFL learners. Much research has been carried out overseas on this topic. In China, however, despite the common practice of reading aloud among foreign language learners, very little scholarly research, to the best of our awareness, has ever been carried out to investigate the comparative values of reading aloud and silent reading in terms of comprehension among Chinese EFL learners. The prevailing assumption and claims about them are found to be short of theoretical explanation as well as support from empirical studies.

The present study focuses on the effects of reading aloud and silent reading on Chinese foreign language learners' comprehension. In this study, it is intended to find out if there exist any differences, as it is assumed, between the effects of these two modes of reading on comprehension. This study consists of six chapters. Chapter 2 presents a review of the literature including theories about the reading process, some empirical studies and the analysis of the differences existing between the native speaker readers' and foreign language learner readers'

reading behaviors. The hypothesis of this study is presented in this chapter. Chapter 3 is a detailed description of the methodology adopted in this study, the design of the experiment, the subjects, the testing materials, and procedures. Chapter 4 reports the results of the experiment. This will be followed by a discussion and interpretation of the experimental results in Chapter 5. In Chapter 6, the conclusion and implications for foreign language teaching in China will be presented together with some suggestions for further study.

Chapter 2

Literature Review

The aim of this thesis is to compare the relative efficacy of reading aloud and silent reading on reading comprehension¹ among Chinese EFL learners. Differently stated, the theme of this thesis is the relationship between sound and comprehension and whether the articulation of sound in reading aloud has any effect on the reading comprehension of Chinese EFL readers. The ensuing section is, therefore, given to the discussion of some theories of the reading process, and the particular aspects of which lie behind this comparative assessment of comprehension in silent reading and reading aloud. After the theoretical discussions, some relevant empirical studies will be summarized and the hypothesis will be stated. It is realized that there is much more to the reading process than the aspects discussed in this section, but since this study focuses on the effects of articulation of sound on comprehension, the literature will only be limited to this aspect of the reading process.

2.1 Some Theories on Speech and Reading

It was Bloomfield and Fries who developed the early linguistic models

of reading. Bloomfield (1942,1961) emphasized that beginning reading should present only regular correspondence between orthography and speech; Fries(1963) stressed the letter-sound relationships. Bloomfield and Fries defined reading as the act of turning the stimulus of graphic shape on a surface back into speech (Edwards, 1966). Reading is basically described as decoding printed symbols into sound and then extracting meaning from sound.

This view point had been quite influential for a period of time. In the literature on language learning, similar points of view of reading process are commonly observed, which regard reading as a parallel process to listening. That is , when the reader reads the text, he first turns the printed message into speech, then listens to it and then understands the meaning. In this way, the similarities are emphasized between comprehension of graphological symbols and phonological ones within the same language system, while at the same time, the concept of the primacy of speech is usually mentioned. The concept is that a writing system is just a speaking system written down. Moyle (1976:25) illustrates this view fully in his answer to what reading is:

"Writing is the process of presenting speech in a more permanent visual form and therefore reading can be looked upon as the reverse of this process, namely turning the collection of symbols seen on the paper into 'talk', or , in the case of silent reading, into an image of speech sounds. This in English means gaining the ability to read from left to right and from top to bottom of the page, the recognition of letter symbols and their grouping into words"

Following this approach, the close relationship between speech and reading is usually stressed in the statements about the reading process.

Carroll (1962:62) thus defines reading as follows:

"We can define reading, ultimately, as the ability of reconstructing (overtly or covertly) a reasonable spoken message from a printed text, and making responses to the reconstructed message that would parallel those that would be made to the spoken message."

The assumption here is that there should be an intervening and necessary stage of spoken language through which the reader must go in his reading process, and it is regarded as impossible to derive meaning in reading without first filtering the graphological symbols through the sound system of the language.

The relationship between speech and reading has also been well discussed by Conrad in his article '**Speech and Reading**' (1972:205-240).

He emphasized the position of speech both in reading aloud and in silent reading. "His hypothesis can be cast in a strong form or weak form. In its strong form, it asserts that written material must be coded into phonological form to be comprehended. In its weak form, it states that written material is preferably coded into phonological form to be comprehended." (LaBerge, 1972:241)

In stating his concern in his article, Conrad says: "What we are asking here is whether comprehension of printed material--reading-- is possible directly from visual input? Or do we have to say words, whether covertly or overtly, in order to understand their meaning?" According to Conrad, the latter possibility has a conceptual elegance, because "it would fit reading and listening to speech into a single behavioral framework, the only difference being the source of the speech-- oneself or another person."

After the discussion of his concerns, one of the conclusions is that it is most certainly possible that reading can happen without phonology involved, but it will be a great deal easier if the phonology is involved. Since, as Conrad states, "our written language is a system for describing and distinguishing the sounds of spoken language."

The views so far surveyed remain the usual analysis of reading process with regard to the relationship between speech and reading. However, this kind of theory has been criticized by the scholars like Smith and Goodman, who are the proponents of the transformational model of reading who hold the view of reading unlike the more usual one. The criticism is the view that spoken language is not, or does not have to be, an intervening stage in the reading process between written symbols and comprehension.

In the following part, the views from Transformational-Generative grammar about reading will be surveyed first, and a detailed discussion is then given of the theories by Smith and Goodman, which serve as the theoretical basis for the present study.

2.2 Transformational-Generative Grammar

The scholars in this theoretical group (Chomsky (1957, 1965, 1968, 1969, 1970), Chomsky and Halle (1968), Goodman (1966), Ruddel (1974) reject the notion that reading is simply sequential word recognition. For them, reading is then perceived as a psycholinguistic process which is only superficially different from the comprehension of speech. The

beginning reader is thought to use abstract rules about language structure to arrive at comprehension.

This approach emphasizes that all languages and hence sentences have a surface structure and a deep structure. Sounds or written words are the surface representation of a message; meaning, syntactic and semantic interpretation are the deep level. The deep structure gives the meaning of the sentence; the surface structure gives the form of a sentence (Jacobs and Rosenbaum, 1968).

The Transformational-Generative grammar model suggests that grammar or the rules of syntax are a set of rules by which sense is made out of language, or by which words are arranged into sentences. Grammar is the link between sound and meaning.

2.3 Smith's Model of Reading Process

In his model of the reading process, Smith accepts the transformational analysis as basis, especially the analysis of language into deep and surface levels. He strongly criticizes the view of mediation of meaning² through sound (or through phonology) in the process of reading. In his article '**Decoding: The Great Fallacy**' (1973), he regards the concept that

reading involves decoding, or reconverting, written symbols into spoken language as a concept which is old as the alphabet. The views concerning the phonological decoding mentioned above are called by Smith the 'decoding to sound hypothesis' and is characterized by him as a great fallacy, which he thinks is as "impossible in practice as it is untenable in theory." He thinks that such a view is not even a valid description of what readers can be observed to do. Consequently, Smith proposes his own model of reading process as an alternative one, in which spoken language and written language are given equal and functionally independent status within the overall communication system. Just contrary to Mogle's statement that 'writing is the process of presenting speech in a more permanent visual form', Smith states:

"Written language is not speech written down; I must dispose of that possibility first of all. Writing is a visual form of language(not the only one), and speech is an acoustic form of language..... Both writing and speech are at the surface level of language, related by hierarchical systems of rules to underlying deep structure..... Writing and speech stand at an equivalent level to each other, and not in any hierarchical relationship. Only hierarchically and in the chronological development of (most) individuals can speech be said to prior to writing." (1973:71)

(most) individuals can speech be said to prior to writing. (1973:71)

In supporting his hypothesis, Smith lists several reasons, the main ones of which are as follows:

1. Meaning is independent of sound.
2. Meaning facilitates reading.
3. Meaning is required to produce sound.
4. There is no time to produce sound without meaning.
5. Decoding to sound is not the natural way to read.
6. Subvocalization does not aid in understanding the text.

These six assertions made by Smith deal with various aspects connected with the relationship between sound and meaning, which is central to the theme of this thesis, therefore they should be reviewed in detail.

The first assertion made by Smith is that meaning is independent of sound. To support his claim, Smith uses the example of translation. He thinks there is a parallel between translation across languages and 'translation' between written and spoken modes with some languages. Smith states that the translation from one language to another must be

mediated through meaning and so ' the written language must be understood before an acceptable (that is , comprehensible to a listener) translation into spoken language can be produced.' (1973) He also claims that in ideographic writing system, ' decoding to sound ' is dependent on the prior apprehension of meaning and the same situation precisely exists in alphabetic writing systems.

The second assertion made by Smith is that meaning facilitates reading. He points out the well established fact that the more prior understanding that can be contributed by a reader, the less information is required from the code. Meaning , in the form of semantic and syntactic constraints, minimises the amount of visual information required to identify words occurring in meaningful sequences. "In short", Smith states "the more a reader can contribute 'nonvisual information' from his prior knowledge of the probabilities of words (and meaning) in language , the less visual information he requires in order to read, whether he is attempting to identify letters, words, or entire meanings."

The third assertion made by Smith is that meaning is required to produce sound. In discussing this issue, Smith thinks that you must know what the sentence means before you can utter a sentence. Only the meaning

of the entire sequence will tell you the syntactic role of the individual words, which for some words is essential for any decision about intonation.

The fourth assertion is that there is no time to produce sounds without meaning. Smith points out that visual processing of written information can take place at only specific and limited rates for both letters (research by Kolars, 1970) and word (research by Smith and Holmes, 1971) processing. He also mentions the 'eye-voice span' in reading aloud as indicating the distance ahead that the reader is sampling before committing himself to the actual utterance of a word. These points are regarded as evidence that there is no time to produce sounds without meaning. 'We need information over an average span of about four or five words in front (and also four or five words behind) if we are to read a word aloud comprehensibly and with comprehension.'

The fifth assertion made by Smith is that decoding to sound is not the natural way to read. He refers a number of times to what children and fluent readers do 'instinctively', 'reading for meaning, not reading to identify individual words'. A result of this is that their errors are often deviations from the actual written cues, but remain meaningful and

consistent with the intended message. This means that they are not reading word for word, which in turn means, according to Smith, that they are ' obviously not reading by decoding to sound.' He continues:" The decoding point of view requires a word for word model of reading, and any evidence that readers do not read word for word is evidence against the decoding hypothesis.

In the last part of his article, Smith airs his view on subvocalization in reading. It is very often observed that proficient readers and beginners subvocalize while reading , the former when confronted with difficult words, the latter at all times. Upholders of the decoding to sound hypothesis regard this as evidence that their view is correct. Smith sees subvocalization by proficient readers as regression to classroom-induced behavior. He argues that 'if a reader can extract sufficient meaning form text to read aloud(or subvocalize) in an intelligible way, then he has extracted sufficient meaning to dispense with vocalization or subvocalization altogether.' This argument assumes that subvocalization cannot provide a route to comprehension.

In conclusion, Smith states that given a model of language which has two 'levels'---- a deep structure and a surface structure---- the

decoding to sound hypothesis would show the following sequence:

surface structure SS of spoken deep structure of
of writing language spoken language

However, Smith regards it as impossible to move from the surface structure of written language to surface structure of speech without passing first through the deep structure of writing. Thus, he gives a second stage as follows:

SS writing DS writing SS spoken Lg DS spoken Lg

After eliminating the two same deep structures, the following models are given for reading aloud and silent reading:

READING ALOUD : SS writing DS SS spoken Lg

SILENT READING : SS writing DS

Then Smith says: " In such a conceptualization, there is no room to

hypothesize decoding to sound at all."

Coming back to our central concern of this thesis, according to Smith's model, we may say that two modes of reading, that is reading aloud vs. silent reading, would yield equal amount of meaning for equivalent texts³, since articulation in reading aloud is only added after the extraction of meaning.

2.4 Goodman's Model of the Reading Process

One of the differences between Goodman's and Smith's models of reading process is that, unlike Smith, Goodman gives an important place to the phonology in reading process, even in silent reading. Goodman does not go to extreme as Smith in stating the degree to which proficient reading is independent of phonological mediation. Goodman states that:

"The starting point is graphic in reading and we may call one cue system 'graphophonic'. The reader responds to graphic sequences and may utilize the correspondences between the graphic and phonological systems of his English dialect. I should point out that these are not phoneme-grapheme correspondences but in fact operate on morphophonemic levels. (that is, spelling patterns relate to sound sequence.) (1970:25)

In referring to this graphophonic cue system as a basic kind of information required in reading, he remarks: "This is the information from graphic system and the phonological system of oral language. Additional information comes to the reader from the interrelationship between the two systems."

Goodman also distinguishes three stages in the development of reading proficiency:

1) Oral, in which reading aloud is the normal mode, 2) aural, in which the reader listens in to the text and 3) silent, in which sound normally plays no part. He states that : "As the child develops reading skill and speed, he uses increasingly fewer graphic cues. Silent reading can then become a more rapid and efficient process than oral reading" (1970:114)

In his article, **Reading, a Psycholinguistic Guessing Game**(1970:105-119) , Goodman explains his point of view about the reading process in detail. He criticizes the former points of view of reading as a 'precise process' that involves exact, detailed , sequential perception and identification of letters, words, spelling patterns and larger language units'. He refers to this point of view as the 'misconception' and refers to his view of reading as a 'psycholinguistic guessing game', which is a

'selective process' that 'involves partial use of available minimal language cues selected from perceptual input on the basis of the reader's expectation. As this partial information is processed, tentative decisions are made, to be confirmed, rejected or refined as reading progresses. (Goodman, 1967)

According to this point of view about reading, the more skilled reader is not the one who has the more precise perception and identification of all elements, but, rather, the one who uses the least number of cues necessary for correct 'guesses' at the first attempt.

In discussing silent reading and reading aloud, Goodman specifies a process which he calls recoding (to distinguish from decoding). This is simply a matter of putting the same information into a different set of surface symbols: graphological symbols into phonological, according to the phonological mediation hypothesis. Decoding only occurs when the reader or listener analyses the surface structure to obtain semantic information. Given this distinction, there are three ways in which these two operations can be arranged in reading aloud: (Goodman, 1967:113)

- 1) The reader may recode graphic input as oral language and

then decode it.

2) He may recode and decode simultaneously.

3) Or , he may decode first and then encode the meaning as oral out put.

Goodman dismisses the first of these operations by stating that 'the common misconception is that graphic input is precisely and sequentially recoded as phonological input and then decoded bit by bit.' The second of these operations does not accord with the existence of 'eye-voice-span'(ie. reading ahead during articulation). The third one is accepted by Goodman as a true picture of reading aloud. According to this picture, silent reading should be a more rapid and efficient process than reading aloud for two reasons: 1) the reader's attention is not divided between decoding and recoding or encoding as oral output, and 2) his speed is not restricted to the speed of speech production.

Goodman further remarks that silent reading is not only more efficient than reading aloud, but also more efficient than listening, since listening is normally limited to the speed of the speaker.

2.5 Empirical Research Comparing Reading Aloud and Silent Reading

Some research has been carried out abroad comparing reading aloud and silent reading in relation to reading comprehension among the native speakers of English. However, this kind of research yields conflicting results. Conrad(1971), Poulton and Brown(1937) all reported no real effect on prose comprehension of reading aloud.

Collins(1961),and Rowell(1976) both reported the superiority of oral reading comprehension over silent reading.

Swalm(1972) compared all three modes (reading aloud, silent reading and listening) in terms of comprehension effectiveness. When all second, third and fourth grade subjects, regardless of reading ability, were analysed together, the group reading orally scored significantly higher than both the silent reading and listening only at the second grade. When the scores were analysed according to reading ability, it was found that above average students comprehended more when they read silently and aloud, rather than listening to a material. Elgart(1978) also conducted a study comparing the three modes of reception effectiveness. The results show that reading aloud was significantly more effective than silent reading in comprehending materials among 45 third-grade

students. One explanation offered for the superiority of reading aloud over silent reading is that by reading aloud, a student is forced to pay closer attention to the words. The reader not only sees the word but hears the word when it is read aloud. Therefore, oral reading involves two senses while silent reading and listening involve only one at a time.

Duker (1965) claims that the conflicting results in these various are due to the sources of errors, the variation between groups of subjects, and the difficulty of the reading passages.

2.5 Reading Aloud and Silent Reading Among Chinese EFL Readers

Having surveyed some theories on the reading process and the relationship between the two modes of reading and comprehension as well as some empirical research on this topic, we should now come back to the central concern of this thesis. Since the interest is in the effects of two reading modes on comprehension among Chinese EFL readers, the question arises as to whether the theories discussed above concerning the reading process in terms of relative efficacy of reading aloud and silent reading could also be applied to the situation of how foreign language learners, like Chinese reader, read. A satisfactory answer to this question calls for

an understanding of the differences existing between how native speakers learn to read and how foreign language learners learn to read.

The native speaker of English, before he actually learns to read, he usually has been exposed to the English language for some time, so that he has a good command of English. This means that he has already mastered the phonological system of English before he learns to read. Hence, when he starts learning to read, he associates the printed message with his spoken English which could help his understanding of what he reads. Under this condition, the printed message, just as some scholars mentioned in this chapter point out, could be more effectively processed if they are comprehended as speech. This is where the phonological mediation is necessary.

For the foreign language learners (not learning in a target language setting), however, the situation is different. It is quite common that most foreign language learners learn to read before they can speak that language. Reading is one of the means of learning how to speak. It can be constantly observed that many foreign language learners can read English without being able to speak it, or without being able to speak it correctly. Under this situation, when foreign language readers read, they frequently

associate the printed message with meaning without going through the intervening stage of phonological decoding. We may say that native speaker readers come equipped with the knowledge of letter-sound correspondence, while the foreign language readers come equipped with symbol-meaning correspondence. The native speaker readers have to identify their complete phonological system with symbols, while the foreign language readers have to interpose the sound system of English into the direct symbol meaning correspondence. ⁴

Due to the differences given above between how native speaker and foreign language readers learn to read, we find a less significant role for phonological decoding in the process of reading among foreign language readers. The following model may be used to explain reading aloud and silent reading among many Chinese foreign language readers:

Reading Aloud	printed	meaning	spoken
	message	language	language

Silent Reading	printed message	meaning
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According to the above model, it may be claimed that two modes of reading should have no different effects on Chinese EFL readers' reading comprehension, since meaning is usually achieved before the spoken language is produced. Here, we find that some of Smith's assertions discussed previously can be applied to the situation of foreign language readers, regardless of whether they adequately explain the reading process of native speakers of English. At the same time, the similar point of view from Goodman that when the reader reads aloud, he may decode first and then encode the meaning as oral output may also be a true picture that describes how Chinese EFL readers read aloud. This was found to be true in the experiment to be introduced.

2.6 Summary

The related theories about the relationship have been reviewed between meaning and sound in reading process and also the differences analysed between native speakers and foreign language learners in reading process. From this comes a hypothesis based on the theory as well as the real situation of how Chinese EFL readers read aloud and silently. The

hypothesis to be tested in the following experiment is:

There is no significant difference between the effects of reading aloud and silent reading on comprehension among Chinese EFL readers regardless of their language proficiency.

While this could be tested at any one proficiency, it was thought that some depth could be added to this study to examine the subjects at all three levels of proficiency. However, no predictions were made about these levels. To test the above hypothesis, the Chinese EFL readers at three levels of proficiency were selected. (This was done according to the instructional level of the subjects.) The experiment was designed to isolate the act of reading aloud as the additional element in context which was otherwise unchanged. Thus, the effect on comprehension was measurable. A detailed description of the experiment will be given in the next chapter.

NOTES:

1. **comprehension** --- the successful transference of meaning from
the mind of the speaker/writer to that of the
listener/reader
2. **meaning** --- the structured, conceptual situation or picture evoked
in the minds of native speakers of a particular language by
a string of well formed linguistic units in that language
3. **text** --- a connected passage of discourse.
4. When referring to the association of symbol with meaning, there may
also arise the question of possible transfer of reading strategies from
Chinese: it is frequently assumed that in processing Chinese characters,
readers go directly to meaning since Chinese characters carry direct
meaning which need not be mediated through phonological realization
----- indeed the mediation would be complex because the phonological
realization of given characters would vary across the dialects of Chinese.
However, there is also some evidence that some phonetic decoding may
also occur in reading Chinese. (by Tzeng, Hung and Wang. 1977. 621-630)
This concept is too complex to be taken up seriously in this study, in part

because it introduces a number of hypothesis about the mental processing of information which have yet to be confirmed. However, interested readers may consult the articles by Smith (1972:75), and by Tzeng, Hung and Wang. (1977) for some development of this notion.

Chapter 3

Methodology -- Design, Subjects, Instruments and Procedures

3.1 Design

A single subject, repeated measures design was employed in this study. The two conditions of this experiment were reading aloud and silent reading. The independent variables were three groups of reading comprehension passages, each of which followed by a certain number of multiple-choice comprehension questions. The dependent variables were the comprehension scores obtained by each subject from the reading passages. Each subject was tested once under each condition. The control variables were: 1) subjects' reading ability, 2) difficulty and length of the reading passages, 3) order effect (order of presenting the reading passages to the subjects), 4) time spent in reading the reading passage under each condition.

The subjects' reading ability was controlled by selecting the subjects from generally the same level of language proficiency randomly.

The difficulty and length of the comprehension passages were controlled by selecting the passages from some standard reading

comprehension tests for readers at a certain level of proficiency, which were at the same time of more or less the equivalent length.

Counterbalancing, to neutralize any possible order effect, was provided for by assigning the subjects to one of the four groups in the experiment, in which the passages for reading were reversed in relation to the two experimental conditions. Randomization in assigning the subjects to a particular group was achieved by placing them in the group before meeting them.

Three sets of cloze tests were provided for the subjects at each level of proficiency respectively, which was meant to confirm the appropriateness of the comprehension passages for those subjects in the experiment.

Besides, for each passage, a list of possible new words with the Chinese explanations (see Appendix E.) was given to the subjects before they actually read the passage, just to make sure that only comprehension rather than the vocabulary was tested. The criterion for choosing those new words was based on whether they had appeared in the vocabulary lists in the English text books those subjects had learnt. Fortunately, there were set text books with vocabulary lists for each level of our subjects.

3.2. Subjects

Sixty Chinese EFL learners were used in this experiment. They consisted of three groups of readers, each representing readers at one level of reading proficiency. They were named in this study as readers at a lower level of proficiency, readers at a middle level of proficiency and readers at an advanced level of proficiency. All subjects could speak standard Mandarin, even though their own dialects may vary.

3.2.1. Readers at a Lower Level of Proficiency

Twenty subjects representing this level were selected randomly from one hundred and seventy fourth grade high school students from Middle School No.2 in Xian, China. They were at, or slightly above the level of proficiency required for the Graded exercise in English, Book 1. (Witman Publishing Co. (H.K.) Ltd. 1983) This was confirmed by the results of two cloze tests from that book done by those subjects. The sample may be regarded as representative of the ordinary Chinese high school students learning English at that level of proficiency, based on the researcher's experience. They varied in age from 15---17.

3.2.2. Readers at a Middle - Level of Proficiency

Twenty subjects representing the the readers at this level of proficiency were randomly selected from one hundred and fifty first year students of English in Xian Foreign Languages Institute. Ninty-five percent of them were high school graduates and had entered the colleges by passing the national entrance examination given by the Educational Ministry of China. They were at about the level of proficiency required for the reading tests in the English exam in Hong Kong Certificates of Education Examination, Syllabus A, 1985. (This was confirmed by the cloze test from the same exam). The sample may be regarded as respresentative of most ordinary Chinese EFL learners at the similar level of proficiency in English based on the researcher's experience.. Their ages varied from 17---20.

3.2.3. Readers at an Advanced Level of Proficiency

Twenty subjects representing this level of proficiency were randomly selected from one hundred and forty fourth year students of English in Xian Foreign Language Institute, who had been in college for

three years. They were at, or slightly above the level of proficiency required for the reading comprehension test in the English exam in Hong Kong Higher Level Examination. 1985. (This was confirmed by the results of the cloze test done by those subjects).They may be regarded as representative of the Chinese EFL learners at the similar level of proficiency in English.

3.3. Instruments

The test materials used in this experiment consisted of three cloze tests, each of which was meant for subjects representing one level of proficiency and three groups of reading comprehension passages. (A full set of the cloze tests, reading comprehension passages, multiple choice questions and answers to those tests are given in Appendix A,B,C, D.)

It would have been better if the test materials could have been specially devised for this experiment according to the specific learning conditions of the subjects. However, due to the limited time for this thesis and also due to some practical difficulties in field testing and revising the test materials, the tests were not devised specifically for a Mainland China situation. Therefore, in the interests of having a reliable

and valid instrument, some standard reading comprehension tests were chosen from various sources for the present experiment. In the following part, these test materials will be introduced and at the same time some of their weaknesses will be pointed out.

3.3.1. Cloze Tests

Three cloze tests were included to provide an independent measure of the English proficiency of the subjects at different levels. Every fifth word was deleted and the tests were marked using the commonly accepted word method with one point for semantic and one point for grammatical accuracy.

The cloze test (two short ones) used for the lower level of proficiency were taken from the book Graded Exercise in English I, the same one that the reading comprehension passages used later were taken from. There were 27 blanks and the total possible score for the cloze tests was 54.

The cloze test used for the subjects representing middle level of proficiency was the first three paragraphs of the reading comprehension test in The English in Hong Kong Certificates of Educational Exam. There

were 30 blanks and the total possible score for the cloze test was 60.

The cloze test used for the advanced level subjects was the first paragraph of a reading comprehension test in the English exam in Hong Kong Higher level Examination, 1983. There were 30 blanks and the total possible score for this cloze test was 60.

3.3.2. Reading Comprehension Passages

3.3.2.1. Reading Comprehension Passages for Lower Level Subjects

Four short comprehension passages were selected from Graded Exercise in English I for this level of subjects. Each passages was followed by fives multiple choice questions testing the understanding of the passages. The four passages were named passages A, B, C, D. A and B formed a group and C and D formed another. Thus, each group had two short passages with ten multiple choice questions. All these four passages were more or less parallel in structure, length and syntactic difficulty.

For the comprehension questions, the students were asked to select the best answers. Unfortunately, some of the multiple choice questions were vocabulary or memory ones rather than real comprehension questions.

This problem was tackled by giving different weight to those questions. Each comprehension question received 3 scores, each memory question received 2 scores and vocabulary question received only one. Each group of passages had an equal number of comprehension, memory and vocabulary questions. (See Appendix F.)

3.3.2.2. Reading Comprehension Passages for Middle Level Subjects

Two reading comprehension passages from Hong Kong Certificate of Education 1985. Syllabus A. English Exam was chosen for the subjects at this level of proficiency. Each passage had eight multiple choice comprehension questions. The students were asked to choose the right answers to those questions. The two passages were more or less parallel in length, structure and difficulty. All the questions were genuine comprehension questions designed to test understanding of certain sections of the passages. They were labelled Passages A and B in this experiment.

The weakness of the test material was that Passage A was taken from a newspaper and was marked by journalistic usage (for example, the attribution of speech) which may have had an unexpected effect on the

difficulty level.

3.3.2.3. Reading Comprehension Passages for Advanced Level Subjects

Two reading comprehension passages from Hong Kong Higher Level Examination, English Exam (1985) were chosen for the subjects at this level of proficiency. They were also labelled A and B. Passage A was followed by eleven multiple choice questions for comprehension and Passage B followed by ten. They were all genuine comprehension questions testing the understanding of certain section of the passage.

The weakness of these passages is that the two passages, especially Passage B, were somewhat culturally constrained and may have been somewhat inappropriate for the Chinese EFL readers.

3.3.2.4. The Characteristics of the Reading Passages

1) Passages for Lower Level Readers

Passage A:

Number of words---290

Number of possible new words---4 (1.3%)

Passage B:

Number of words---206

Number of possible new words---5 (2.4%)

Passage C:

Number of words---227

Number of possible new words---7 (3%)

Passage D:

Number of words---245

Number of possible new words---5 (2%)

2) Passages for Middle Level Readers

Passage A:

Number of words ---370

Number of possible new words---6 (1.6%)

Passage B:

Number of words---333

Number of possible new words---8 (2.2%)

3) Passages for Advanced Level Readers

Passage A:

Number of words---570

Number of possible new words---8 (1.4%)

Passage B:

Number of words---590

Number of possible new words---9 (1.5%)

(For the list of new words, see Appendix E.)

3.3.2.5. The Appropriateness of the Reading Passages

As a check on the appropriateness of the reading passages and the comprehension questions, the subjects' scores in these comprehension questions were correlated with their scores in cloze tests using Spearman

Rank Order Correlation. The details were as follows: the value of ρ had to exceed 0.4227 for $N=20$ for a significant agreement between the two orderings of the data at the $p=0.05$ level. The value of ρ for lower level subjects' data was 0.68; the value of ρ for middle level subjects' data was 0.83; and the value of ρ for advanced level subjects' data was 0.58. All the three values showed a significant positive correlation between the two variables for each level, that is between the cloze and comprehension tests given to the subjects at different levels of proficiency. Since the cloze test is generally accepted as an objective index of general language proficiency, it may be inferred that the comprehension passages and the questions were suitable for these subjects they were intended to test.

3.3. Procedures

The agreement of each subject was obtained before actually participating the experiment since it was beyond regular classroomwork. Each subject was tested individually. Before reading the passages in the experiment, the purpose of the study was simply explained to each subject.

It was made clear that this was a private study, the results of which had nothing to do with the subject's grade in school and no result would be communicated to his teacher or school authority. The cloze tests were given to each group before they had the comprehension tests.

The time spent in testing each subject was approximately 50 minutes for each lower level subject, 45 minutes for each middle level subject and 55 minutes for each advanced level subjects. It was made clear to each subject that he should read the passages at his normal speed and the purpose of reading these passages under both conditions was to comprehend the content of them.

3.4.1. Reading Aloud

Under this condition, each subject was asked to read aloud the passage with as correct intonation and pronunciation as possible. Having learned English for some period of time under formal training, most of them could read the passages appropriate to their level of proficiency with intelligible pronunciation and intonation. Each subject was only required to read each passage once under each condition. Then they answered the comprehension questions without referring back to the

passages.

3.4.2. Silent Reading

Under this condition, each subject was asked to move a card down the page to cover the line they had just read. This was required to restrict regression, so that the silent reading could be more similar to the reading aloud, in which major regression was impossible due to the constraint of having a listener. The possible weakness of doing this is that this makes silent reading less like the natural process, therefore any bias in terms of the experiment would be in the direction of reducing comprehension. If the predicted effect still occurred, the support for better understanding in silent reading would be strengthened. Before each silent reading, each subject was given a few minutes to practise reading any text in this manner.

3.4.3. Order and Manner of Presenting the Test Materials

The list of possible new words of each passage was presented to the subjects before they started reading. They then had the time to become familiar with the new words.

In the reading and comprehension section, the subjects at all three levels of proficiency (for each level N=20) were divided into four groups respectively. Group A,B,C,D. Each five of the subjects were assigned to one group. The order and manner of presenting the materials to the subjects can be seen from the following diagrams:

Lower Level Subjects:

Group	Passage AB	Passage CD
group A	read aloud first	read silently second
group B	read silently second	read aloud first
group C	read silently first	read aloud second
group D	read aloud second	read silently first

Middle Level and Advanced Level Subjects:

Group	Passage A	Passage B
group A	read aloud first	read silently second
group B	read silently second	read aloud first
group C	read silently first	read aloud second
group D	read aloud second	read silently first

At the end of each reading and before doing the comprehension questions, each subject was given a simple task unrelated to the reading and lasting at least fifteen seconds.(They were asked to write a sentence about themselves, their hometown, their school or something else.) This was intended to overcome the effect of short-term memory, especially in regard to remembering the end of each passage as the comprehension questions were attempted immediately after each reading.

3.4.4. Procedures for Analysing Data

In analysing the data, the averages and percentages of the comprehension scores were first calculated to provide an overall assessment. Then the data were analysed using a t-test and a matched t-test.

A t-test is a statistical test that allows one to compare two means to determine the probability that the difference between the means is a real difference rather than a chance difference (Tuckman, 1972). This test is a widely used one because it can be used with a very small sample size. The assumption behind this test is that there should be random selection of subjects; the subject is assigned to one group in the experiment; the scores on the independent variables are continuous and there are only two levels to the variables (two means); the variances of the scores in the populations are equal; and the scores are randomly distributed. At the same time, t-test is a fairly robust test; so one does not have to be terribly concerned about the normal distribution of the scores. (Hatch and Farhady, 1982) The present experimental data meet the requirements of the t-test listed above.

In the present study, the conventional 0.05 level of significance was selected for rejecting the null hypothesis. That is to say, since in this study $d.f. = 18$, if $p < 0.05$, the t -value of the comparison must exceed 2.101 to reject the null hypothesis. If the t -value does not exceed this figure, the null hypothesis will be accepted.

A t -test analysis is generally used to compare two means obtained from two independent groups of subjects. However, it is often the case that the two means of scores one wants to compare come from the same subjects. Under this condition, a matched t -test can be applied. The procedure for matched t -test is similar to the t -test for independent samples. The difference is more conceptual than computational. In the matched t -test, N is the number of pairs rather than the number of observations. Also the standard error of the difference between means will be calculated by dividing not by the number of observations, but rather by the number of pairs minus one (the degrees of freedom for pairs). (Hatch and Farhady, 1982)

Here again, the 0.05 level of significance was selected to reject the null hypothesis. That is to say, for $d.f = 9$ in this study, if $p < 0.05$, the t -value of the comparison must exceed 2.262 to reject the null hypothesis,

otherwise, the null hypothesis will be accepted.

Chapter 4

Results

As the results of this study were examined at three proficiency levels, the results will then be presented according to or by these proficiency levels. In this chapter, the averages and percentages of the gained comprehension scores by the subjects at each level will be listed out first together with the total averages of the comprehension scores obtained with two reading modes to provide an overall comparison of the effects of reading aloud and silent reading on comprehension. Then, the data will be further considered using t-test and matched t-test to provide stronger evidence to support the hypothesis of this study. As a reminder, the hypothesis of this study is that there is no significant difference between the effects of reading aloud and silent reading on comprehension among Chinese EFL learners regardless of their language proficiency.

1. Averages and Percentages of Comprehension Scores Obtained by Lower Level Proficiency Subjects with Two Modes of Reading

In the present experiment, for the lower level subjects, passages AB were read by one group of ten subjects (group AC) aloud and by another group of ten subjects (group BD) silently. Passages CD were read by one group of ten subjects (group BD) aloud and by another group of ten subjects (group AC) silently. Table 1 shows the averages of the scores achieved from the comprehension questions of each pair of reading passages by two groups of subjects at this level with two modes of reading. (For details of the scores, see Appendix G.)

Table 1
Averages of Comprehension Scores from Passages AB and
CD by Two Groups of Subjects with Two Modes of Reading

Modes of Reading	Passages AB(Total 24)		Passages CD(Total 24)		Total Averages	
	Average No of Scores Obtained	% of Possible Total	Average No of Scores Obtained	% of Possible Total	Averages	%
Aloud	16.3	67.9%	16.1	67%	16.2	67.5%
Silent	15.1	67%	15.6	65%	15.35	66%
Difference between Two Modes	0.2	0.9%	0.5	2%	0.35	1.5%

Also in this experiment, for the lower level subjects, ten subjects (group AC) read passages AB aloud and CD silently; another ten subjects (group BD) read passages CD aloud and AB silently. Table 2 below shows the averages of comprehension scores obtained by each group of lower level subjects from two parallel passages (in this case two pairs) which were read aloud and silently respectively. (For details about the scores, see Appendix G.)

Table 2

Averages of Comprehension Scores Obtained by Two Groups of Subjects from Two Passages with Two Modes of Reading

Modes of Reading	Group AC (Total 24)		Group BD (Total 24)		Total Averages	
	Average No of Scores Obtained	% of Possible Total	Average No of Scores Obtained	% of Possible Total	Averages	%
Aloud	16.3	67.9%	16.1	67%	16.2	67.5%
Silent	15.6	65%	16.1	67%	15.8	66%
Difference between Two Modes	0.7	2.9%	0	0	0.35	1.5%

As table 1 and 2 show, there were very small differences between the modes of reading for all configurations of the population.

2. Averages and Percentages of Comprehension Scores Obtained by Middle level and Advanced Level Proficiency Subjects

In the present experiment, for middle level proficiency subjects, passage A was read by a group of ten subjects (group AC) aloud and by another ten subjects (group BD) silently. Passage B was read by ten subjects (group BD) aloud and by another ten subjects (group AC) silently. For the advanced level subjects, the situation was the same. Table 3 below shows the averages of the scores achieved from the comprehension questions of each passage by two groups of middle level proficiency subjects with two modes of reading. Table 4 shows the situation for the advanced level subjects.

Table 3

Averages of Comprehension Scores from Passage A and B by
Two Groups of Middle Level Subjects with Two Modes of Reading

Modes of Reading	Passage A (Total 8)		Passage B (Total 8)		Total Averages	
	Average No of Scores Obtained	% of Possible Total	Average No of Scores Obtained	% of Possible Total	Averages	%
Aloud	4.2	52.5%	4.2	52.5%	4.2	52.5%
Silent	4.8	60%	4.5	56.25%	4.65	58.1%
Difference between Two Modes	0.6	7.5%	0.3	3.75%	0.45	5.6%

Table 4

Averages of Comprehension Scores from Passage A and B by
Two Groups of Advanced Level Subjects with Two Modes of Reading

Modes of Reading	Passage A (Total 11)		Passage B (Total 10)		Total Averages (in percentage form)*
	Average No of Scores Obtained	% of Possible Total	Average No of Scores Obtained	% of Possible Total	%
Aloud	4.5	40.9%	4.7	47%	43.95%
Silent	5.2	47.27%	5.8	58%	52.635%
Difference	0.7	7.18%	1.1	11%	8.685%

* The total averages were converted into percentage form because the two passages had a different number of comprehension questions.

Table 3 shows very small difference between the modes for all configurations of the population, whereas table 4 shows a comparatively greater difference between the two modes of reading.(8.685%)

Also in the experiment, for the middle level subjects, ten subjects (group AC) read passage A aloud and B silently; another ten subjects (group

BD) read passage B aloud and A silently. For the advanced level subjects, the situation was also the same. Table 5 shows the averages of comprehension scores obtained by each group of middle level subjects from two passages which were read aloud and silently respectively. Table 6 shows the situation for the advanced level subjects.(For details of the scores, see Appendix G.)

Table 5

Averages of Comprehension Scores Obtained by Two Groups of Middle Level subjects from Two Passages with Two Modes of Reading

Modes of Reading	Group AC (Total 8)		Group BD (Total 8)		Total Averages	
	Average No of Scores Obtained	% of Possible Total	Average No of Scores Obtained	% of Possible Total	Averages	%
Aloud	4.2	52.5%	4.2	52.5%	4.2	52.5%
Silent	4.5	56.25%	4.8	60%	4.65	58.1%
Difference between Two Modes	0.3	3.75%	0.6	7.5%	0.45	5.6%

Table 6

Averages of Comprehension Scores Obtained by Two Groups of
Advanced Level Subjects from Two Passages with Two Modes of Reading

Modes of Reading	Group AC (Total 11 in aloud) (Total 10 in silent)		Group BD (Total 10 in aloud) (Total 11 in silent)		Total Averages (in percentage form)*
	Average No of Scores Obtained	% of Possible Total	Average No of Scores Obtained	% of Possible Total	
Aloud	4.5	40.9%	4.7	47%	43.95%
Silent	5.8	58%	5.2	47.27%	52.635%
Difference between Two Modes		17.1%		0.27%	8.685%

* The total averages were converted into percentage form because the two passages had a different number of comprehension questions.

From the total averages and percentages listed in the above tables, we can see that there is very a small difference between the total averages of comprehension scores of reading aloud and silent reading among lower level and middle level subjects. (the difference was 0.35 (1.5%) and 0.45 (5.6%) respectively.) There appears to be a comparatively

greater difference between the total averages of comprehension scores of reading aloud and silent reading among advanced level subjects. However the significance of this difference needed to be tested.

In order to provide stronger evidence for the hypothesis, a t-test was done to compare the means of scores achieved from the comprehension questions of each or each pair of reading passages by two groups of subjects from each level of reading proficiency with two modes of reading. A matched t-test was done to compare the means of comprehension scores obtained by one group of subjects at each level from two parallel passages which were read aloud and silently respectively. These data are presented below.

4.1 Analysis of Results Using t-test

In tables 7 and 8 are the results of the t-test for the lower level proficiency subjects. As may be seen there was no significant difference at the 0.05 level with t-values of 0.108 and 0.299. The t-values calculated in the two tables below all allow the acceptance of the null hypothesis which means there is no significant difference between the means of the comprehension scores obtained by two groups of lower level

subjects for passages AB and CD using two modes of reading.

Table 7

t-test Comparing the Means of Scores Gained
from Passage AB by Two Groups of Subjects (lower level)

Reading Modes	Number of Subjects	Means of Scores	Standard Deviation	<i>t</i> -value
Reading Aloud	10	16.3	3.62	0.108 *
Silent Reading	10	16.1	4.62	

* $p < 0.05$ d.f = 18

Table 8

t-test Comparing the Means of Scores Gained from Passage
CD by Two Groups of Subjects with Two Modes of Reading (lower level)

Reading Modes	Number of Subjects	Means of Scores	Standard Deviation	<i>t</i> -value
Reading Aloud	10	16.1	4.48	0.299 *
Silent Reading	10	15.6	2.79	

* $p < 0.05$ d.f = 18

The t-values in tables 9 and 10 all allow the acceptance of the null hypothesis which means that there is no significant difference (at the 0.05 level) between the means of comprehension scores obtained by two groups of middle level subjects from passages A and B using the two modes of reading.

Table 9

t-test Comparing the Means of Scores Gained from Passage A by Two Groups of Middle Level Subjects with Two Modes of Reading

Reading Modes	Subject Number	Means of Scores	Standard Deviation	t-value
Reading Aloud	10	4.2	1.68	0.92 *
Silent Reading	10	4.8	1.61	

* p< 0.05 d.f = 18

Table 10

t-test Comparing the Means of Scores Gained from Passage B by Two Groups of Middle Level Subjects with Two Modes of Reading

Reading Modes	Subject Number	Means of Scores	Standard Deviation	<i>t</i> -value
Reading Aloud	10	4.2	1.03	0.45 *
Silent Reading	10	4.5	1.43	

* $p < 0.05$ $d.f = 18$

The *t*-values reported in tables 11 and 12 all tend to support the null hypothesis which means there is no significant difference (at the 0.05 level) between the means of comprehension scores obtained by two groups of advanced level subjects from passages A and B using the two modes of reading.

Table 11

t-test Comparing the Means of Scores Gained from Passage A by Two Groups of Advanced Level Subjects with Two Modes of Reading

Reading Modes	Subject Number	Means of Scores	Standard Deviation	<i>t</i> -value
Reading Aloud	10	4.5	1.9	-0.875 *
Silent Reading	10	5.2	1.75	

* $p < 0.05$ d.f = 18

Table 12

t-test Comparing the Means of Scores Gained from Passage B by Two Groups of Advanced Level Subjects with Two Modes of Reading

Reading Modes	Subject Number	Means of Scores	Standard Deviation	<i>t</i> -value
Reading Aloud	10	4.7	3.213	-1.233 *
Silent Reading	10	5.8	1.75	

* $p < 0.05$ d.f = 18

4.2 Analysis of Results Using Matched t-test

The t-value shown in table 13 of matched t-test supports the null hypothesis which means that there is no significant difference (at the 0.05 level) between the means of scores obtained by one group of lower level subjects from two passages, passage AB and passage CD using the two modes of reading.

For Group BC of the of lower level subjects., the mean scores gained from passage AB and CD were the same, therefore a comparison was unnecessary.

Table 13

Matched t -test Comparing the means of Scores Gained by
Group AC of Lower Level Subjects from Passgae AB and CD

Subject Number	Gained Scores Passage AB / Passage CD (aloud)		Difference (D)	Difference ² (D ²)
A1	17	20	-3	9
A2	12	14	-2	4
A3	22	15	7	49
A4	15	16	-1	1
A5	20	17	3	9
C1	21	16	5	25
C2	14	16	-2	4
C3	14	9	5	25
C4	12	16	-4	16
C5	16	17	-1	1

Sum of Scores	163	156	7	143
Mean of Scores	16.3	15.6	0.7	
t -value	0.564			
d.f = 9				
$p < 0.05$				

The t -values in tables 14 and 15 all tend to support the null

hypothesis which means there is no significant difference (at the 0.05 level) between means of comprehension scores obtained by group AC of middle level subjects from passage A and passage B using two modes of reading. Also, there is no significant difference between the means of comprehension scores obtained by group BD of middle level subjects from passage A and passage B.

Table 14

Matched t-test Comparing the Means of Scores Gained by Group AC of Middle level Subjects from Passage A and B

Subject Number	Gained Scores Passage A / Passage B (aloud)		Difference (D)	Difference ² (D ²)
A1	3	3	0	0
A2	5	5	0	0
A3	2	4	-2	4
A4	7	2	5	25
A5	5	6	-1	1
C1	6	6	0	0
C2	5	5	0	0
C3	3	5	-2	4
C4	4	6	-2	4
C5	2	6	-4	16
Sum of Scores	42	45	-6	54
Mean of Scores	4.2	4.5	0.6	
t-value	0.40			
df	9			
p <	0.05			

Table 15

Matched t-test Comparing the Means of Scores Gained by
Group BC of Middle Level Subjects from Passage A and B

Subject Number	Gained Scores Passage B / Passage A (aloud)		Difference (D)	Difference ² (D ²)
B1	5	5	0	0
B2	4	5	-1	1
B3	5	5	0	0
B4	4	4	0	0
B5	3	6	-3	9
D1	5	4	1	1
D2	4	6	-2	4
D3	2	1	-1	1
D4	5	5	0	0
D5	5	7	-2	4
Sum of Scores	48	42	-9	20
Means of Scores	4.8	4.2	-0.9	
t-value	1.65			
d.f = 9				
p < 0.05				

Passage A and passage B used to test the advanced level subjects have different number of comprehension questions. Passage A has 11 and passage B has 10. In order to compare the scores through the Matched t-test process, the scores from both passages were converted into percentage of the total scores, which made the comparison possible.

Again, The t-value reported in table 16 supports the null hypothesis which means that there is no significant difference (at the 0.05 level) between the means of comprehension scores obtained by advanced level subjects from two reading passages using the two modes of reading.

For group BC in advanced level, the mean scores gained from passage A and B are similar (the difference was only 0.27%)which appears to be too trivial for a comparison. Therefore, no matched t-test was applied to this data. This phenomenon is probably due to the small sample of subjects used in the experiment.

Table 16

Matched t-test Comparing the Means of Scores Gained from
Passage A and B By Group AC of Advanced Level Subjects

Subject Number	Gained Scores (percentage) Passage A / Passage B (aloud)		D	D ²
A1	36.36	70	-33.64	1131.649
A2	27.27	80	-52.73	2780.452
A3	27.27	60	-32.73	1071.252
A4	9	30	-21	441
A5	45.45	40	5.45	29.7
C1	63.63	40	23.63	558.376
C2	54.54	50	4.54	20.61
C3	63.63	70	-6.37	40.576
C4	45.45	80	-34.55	1193.7
C5	36.36	60	-23.64	588.849
Sum of Percentile	408.96	540	-171.04	7856.164
Means of Percentile	40.896	54	-17.104	
t-value	-1.769			
d.f = 9				
p < 0.05				

Chapter 5

Discussion of Results

Goode and Hatt(1952:87) once stated:'It is impossible to come to the conclusion that certainty can never be reached by any design of proof..... However, uncertainty can be diminished, and the probable accuracy of observation increased..... By whatever design the hypothesis is tested the results are never certain but are approximations stated in terms of probability.' This statement aptly captures the spirit of this kind of experimentation and puts a useful perspective on the kind of results yielded.

This chapter is given to a discussion of of the results and some theoretical implications of the experimental findings.

To sum up, the initial hypothesis has been well supported by the results of the experiment. (this can be seen clearly in the Results part of this thesis) Based on these results, we can claim that for the particular subjects used for the present study, the two modes of reading would yield an equal amount of meaning for equivalent texts for Chinese EFL readers as it was assumed in the literature review. Reading aloud appears to have no superiority to silent reading in comprehension. Articulation of sound in

reading aloud appears to play no significant part in improving comprehension for Chinese EFL readers. This phenomenon is possibly due to the following facts:

1. Chinese EFL readers generally do not possess the systematic knowledge of English phonology (what Goodman means by 'the correspondences between the graphic and phonological systems of English dialect'), which might help the native speakers of English to read. This fact makes the so called phonological mediation less likely and possibly meaningless(if there is any).

2. Because of the above fact, meaning is independent of sound for the Chinese EFL readers. When they read, no matter silently or aloud, they may go straight from the printed message to meaning without passing through the intervening stage of phonological decoding.

3. When a Chinese EFL reader reads English, he needs first to understand the meaning of the sentence, and then he is able to make a decision about the syntactic role of the words and pronunciation and intonation of the sentence. Without an understanding of the meaning of the sentence, the correct pronunciation and intonation are difficult for Chinese readers to produce.

Given this analysis of reading aloud and silent reading among Chinese

EFL readers, we can reject the prevailing assumption in China that reading aloud betters comprehension as a misconception. Actually, reading aloud limits the speed of reading to that of speech.

The preceeding discussion of results establishes a fact which supports Smith's claims about the position of phonology in the reading process, namely the articulation of sound in reading aloud is simply tacked onto the end product of a direct decoding system (Smith,1973). And also, the results from this particular study support Goodman's claim about the process of reading aloud (see pp. 20-21 in literature review) which holds that when the reader reads aloud, he may first decode and then encode the meaning as oral output(Goodman 1967:113). This claim seems to describe the oral reading process of the Chinese EFL readers too according to this study.

Chapter 6

Conclusions And Implications

6.1 Conclusions

The results of the present study may lead to the following conclusions regarding the effects of reading aloud and silent reading on comprehension among Chinese EFL learners:

1). Reading aloud should not be regarded as a more effective means to develop comprehension for Chinese foreign language readers at any level of proficiency. For Chinese EFL readers, reading aloud and silent reading would yield an equal amount of meaning, therefore, the assumption that reading aloud betters comprehension has been proven to be a misconception in China by this study.

2). Theoretically, Smith's model of reading process which regards articulation of sound in reading aloud as something which is simply tacked onto the end product of a direct decoding sequence has been supported by the results of this study. Meanwhile, Goodman's claim about the oral reading process in which the reader may encode first and then decode the meaning as oral out put has been proved in this particular study to be

somewhat suitable to explain the oral reading process of the Chinese EFL learners too.

6.2 Implications for EFL Teaching of Reading in China

It was observed in the introduction that reading aloud has been advocated in China in reading English on the assumption that it betters comprehension. Reading aloud may help train students to read English with proper pronunciation and intonation and may also help memorization (though no research has been done in China to investigate this), but for reading comprehension, this is simply a practice that has relatively little value for Chinese students of English. Moreover, this practice slows down the speed of reading to that of speech, which is harmful for the training of some silent reading skills like fast reading, scanning and skimming. Therefore, on the part of the school authorities, there should be some consideration given to changing the syllabus a bit, so that more time will be allotted to techniques that are more helpful to developing reading comprehension. And from the point of the teacher, he/she might consider alternative techniques for helping readers improve their comprehension and recognize the probable limited value of reading aloud, reserving such a practice for possibly other purposes but not expecting it to help in

developing comprehension. And from the point of the students, they should recognize that reading aloud will probably not contribute much to their overall comprehension of text, and they should try out alternative techniques and more appropriate ways towards a better understanding of what they read.

6.3 Limitations of the Present Study

The major limitation of this study may lie with the instrument of the experiment; this was given detailed discussion in the methodology part. The other limitation is that the sample used in the experiment was relatively small, only twenty subjects for each level of proficiency, which might have reduced some probability of statistical validity and limits the generalizability of the results to some extent.

6.4 Suggestions for Further Study

1. This study could be usefully replicated with a larger number of Chinese EFL readers, to provide a greater probability of statistical validity.

2. Test materials which are more appropriate for the situation of Chinese EFL learners should be devised for the further study.

3. Further study could include balanced samples of both native speakers and foreign language learners, to observe whether there are any difference in their reading behavior.

4. The effect of different styles of writing on reading strategies and comprehension could also be investigated among Chinese EFL learners.

It is hoped that these results in the present study will provoke others to do further research in this area and will encourage those individuals involved with teaching to think about the actual value of a particular technique, not just adopt it automatically.

APPENDIX: A

Reading Passages for Lower Level Subjects:

Passage A:

One day a boy who was on his way to the market before dawn met a ghost. When he realised that it was a ghost, he collected all his courage and told the ghost that he himself was also a ghost.

They almost became friends as they walked on together. After walking for a mile, the ghost started to feel tired and then suggested that each of them take turns at carrying the other on his back. They soon decided that the boy should have the first ride.

The ghost was surprised that the boy 'ghost' was so heavy but the boy explained that he was a new ghost and his body had not had time to become light. Soon it was the ghost's turn to ride and the boy found that the ghost weighed nothing at all. At the same time, the boy was busy thinking of a means to get free from the ghost. At last, he remarked, 'Being a new ghost, I don't know much about us yet. What are we ghosts most afraid of?'

'Ah, young ghost, you ought to know that,' came the reply. 'The thing that ghost fear most is to have a living person spit at them.'

When they entered the market-place, the ghost was still on the boy's back but when it tried to get down, the boy gripped it tight. The ghost could not get free. Seeing the animals for sale in the market-place, it

touched the ground and turned into a sheep. The boy quickly spat at the sheep so that it could not become a ghost again. Then he led it firmly by the neck up to the butcher who gave a hundred dollars for the sheep.

Passage B:

A thousand dollars given for a brave act is a very large reward and seldom comes to a boy who is only eleven years old.

George lived in a small fishing village near the coast. When he was a very little boy, an accident blinded him for life. In spite of this great handicap he learned to do most things well. He could swim and row and help his father with his lobster traps.

One summer as he was playing on the beach he heard a cry of fear. It was a call for help. Immediately he jumped into his own little boat and fearlessly rowed out towards the open sea until he came to the spot where a woman who had gone beyond her depth was struggling with the big waves. She was sinking when George, guided by her cries, reached her and pulled her into his boat without anyone's help. Then guided by the cheers of those on the shore, he brought her safely to the land.

So naturally and so fearlessly had he done this splendid deed that he found it hard to understand why the on-lookers crowded about him with words of praise or why a few days later a great daily newspaper should give him a thousand dollars.

Passage C:

Angell was a circus elephant in England. He was always gentle and polite, and the children who came to the circus loved him. He was, in fact, a star performer who always got the biggest applause.

One day Angell suddenly changed. He would not dance or play dead or carry the flag. Three times in a week he had tried to kill his keeper, who had been with Angell for three years. He trumpeted angrily at the boys and girls who wanted to feed him. No one understood why. Nothing would make Angell quiet and gentle again.

The city officers, thinking of the safety of the visitors, advised the circus owner to have Angell put to death. It was lucky that a meek little man came up to the owner just before he had decided to do so. He begged the owner to let him go into the cage and calm the wild beast. The owner opened the gate for him with every reluctance. As the little man stepped inside the cage, Angell began to trumpet at angrily. But after the man had spoken gently for a short while, the elephant grew quiet and watchful and finally became obedient again.

When the man came out from the cage, he turned to the owner and said, 'There is nothing wrong with Angell. He is just homesick. Talk to him gently and patiently and try to make him feel as if there were motherly love around him. He will be all right for a long time.'

Passage D:

Most animals can swim right off the first time they go into the water. Dogs, horses deer, and buffaloes do not have to be taught to swim but a man cannot swim until he learns how.

Learning to swim takes time and effort but this is rewarded in many ways when one can swim. As a matter of fact it is a very good form of exercise and doctors are strongly in favour of it because in swimming all the muscles of the body are used.

In addition, swimming gives great pleasure. How nice it is, on a hot dusty day in summer, to take off one's clothes, put on one's bathing suit and plunge into the cool water of the sea, and to swim and float until one is tired.

Moreover, swimming may sometimes mean all the difference between life and death. We never know when we may be in danger from water. We go on a voyage, and the ship is wrecked; or we slip as we are walking along the bank of a river and fall into the water. If we can swim, we have a chance of saving our lives; but if we cannot swim, we are pretty certain to be drowned.

Last but not least, if we can swim, we may be able to save other people from drowning. How fine it is to be able to save other people's life but how sad to see a friend drowning before your eyes, when we cannot help him because we cannot swim!

Reading Passages for Middle Level Subjects:

Passage A:

Why Mr Chen wont serve people who wear glasses

Customers are not always right according to Mr Chen Wai. Not if they wear spectacles. For Mr Chen, a hawker in Sai Kung, refuses to serve people wearing them. His reason: they will bring bad luck to his business. And for the past 10 years he has kept this rule.

Other people, too, have learned to keep his rule - they remove their glasses for the few minutes needed to buy things from him. After all, his goods - tomatoes, garlic bulbs, potatoes and dried beans - are of top quality, and more important, the prices are very low.

However, there have been occasions when a few spectacle - wearers have been offended by his rule and reported him to the police and the Consumer Council. But nothing can be done to get him to change his rule. According to the Sale of Goods Ordinance, a seller can refuse any deal with a buyer if no sales agreement is made.

Five years ago, Mr Chen refused to deal with a woman who came with her spectacle husband, a detective constable. The policeman was very angry and said Mr Chen should change his rule, but supported by a few of regular customers, the hawker refused. He said, 'I don't object to people

who wear glasses, but I have the right to choose my customers.' Mr Chen started refusing to serve people wearing glasses when he first began hawking in the Causeway Bay and Happy Valley areas 10 years ago. He discovered that when someone wearing glasses was present he could not sell anything. 'This made me believe that spectacle - wearers brought me bad luck,' he said. So now when he is doing business there is always a small sign displaying on his cart: 'Wearers of spectacles are not served.'

Mr Chen is always polite, but firm, when refusing to serve a person wearing spectacles - and he cannot be influenced by an offer of more money for his goods. He also refuses to do business with people who try to bargain with him. 'My customers should have faith in me,' he said simply.

Passage B:

Millions of years ago there were trees which produced a sticky substance called sap, as pine trees do now. This sap, when it came out of the tree trunks, would sometimes catch leaves or insects on its stickiness. The sap gradually hardened on the tree trunks, the trees died and fell, and finally the waters of the oceans came inland and made new seas. In these seas, the balls of sap, now as hard as stone, were rolled about in the waves. In the end they came to shore where they were picked up by the Greeks and many other people. The hardened sap is clear, yellow, and shining; we call it amber but the Greeks call elektron from elektor which means sun-glare. They thought that the golden light of the sun

hardened into jewels as it hit the water; elektron to them was solid sunshine.

Amber was used from very early times for jewellery, as it is now, and the pieces with insects caught in them were considered to be especially valuable and decorative. Hundreds of years after the ancient Greeks first picked up amber from the seashore, an English poet, Robert Herrick, wrote about it:

I saw a fly within a bead
Of amber clearly buried.....

It was probably by accident that the Greeks discovered that when you rubbed a piece of amber, or elektron, it became magnetic. Then, like a magnet, it would attract light objects, such as bits of cloth and feathers. They already knew, of course, about electricity in the form of lightning. However, amber introduced them to static electricity which is the same form of electricity that makes our hair crackle when we comb it with a plastic comb.

For hundreds of years, people knew very little about electricity. Then around 1600, William Gilbert, An Englishman, published some studies of the mysterious force. He named it electricity, after elektron, which produced static electricity when rubbed.

Reading Passages for Advanced Level Subjects:

Passage A

The correct presentation of one's name-card is a guide to a man's character. So says Kenji Suzuki who has written 50 books teaching the Japanese how to behave. Before the War, Suzuki says, the Japanese were famous for their beautiful manners, but now they are selfish and inconsiderate. Why, they even don't know how to present their name-card with the proper humility.

This concern with trivial features of etiquette may sound absurd to most people, but to Suzuki it represents a serious deterioration in human relations. He also discusses, for example, the differing social roles of men and women, a subject on which his views are not exactly progressive. Women, Suzuki claims, are blessed with more feelings than brains, and their place is home, as dutiful wives and mothers, while men should be strong, efficient and proud, like Napoleon. But modern Japanese women think otherwise and fathers no longer insist on being served first at mealtimes or taking the first bath. Suzuki thinks the only remedy for this disgraceful state of affairs is to go back to basics: the Japanese must start by relearning how to say 'Excuse me' and 'Thank you' clearly and humbly.

Books like Suzuki's are becoming increasingly popular. In these books the reader is never addressed as an individual but as representing something larger. Suzuki speaks always of 'we Japanese' as if the honour of the whole country was at stake in everything the individual does. Another book, written for women office-workers, warns its readers that they could be watched at any time by outsiders and their behavior will always reflect on the company's reputation. Many companies are emphasizing etiquette in their training programmes. Name-card presentation, bowing, use of polite language, even the correct opening and closing of doors, are instilled in employees by constant compulsory practice.

However absurd the suggested remedies, the concern expressed by Suzuki and people like him is not entirely without reason. The erosion of old family values since the War has had some unfortunate results, with fathers losing their authority and children becoming spoiled. Many conservative Japanese people are worried about this, and are afraid that the pampered modern Japanese children may not be able to sustain the country's prosperity. This fear is supported by opinion polls which show that young people are more interested in enjoying life than in building up their country.

The motive for publishing these stern moral books is therefore clear enough. What is hard to understand is that many young women are interested in their message. There seems to be a contradiction here: more and more young women want to be independent, or at least like to read about independence in popular magazines. But at the same time, they rush out to buy Suzuki's books. This can mean either the Suzuki's fans are quite

different people from the the women who read the magazines, or that the same women are accepting the totally conflicting messages. It seems that the latter is the case.

This too has an explanation, however. The loss of the War and the ensuing struggle for prosperity left a spiritual vacuum in Japan. During the 1960s, many so-called new religions sprang up, and attracted young people, especially women. They had no lasting effect and most of them soon died out which is not surprising in any case the true Japanese religion is observing the traditional rituals of the Japanese way of life. As in all religions, these rituals - bowing, making tea, saying thank you and excuse me correctly - are forms expressing a morality common to the group. The millions of young women who want independence, hamburgers, rock music and a freer sex life, also want the security and the spiritual support of the common beliefs. What they seek in Suzuki's books, in short, is how to be Japanese.

Passage B

During a television programme dealing with corporal punishment, Mr Jonty Driver, Principle of Island School and a well-known educationist, made his own views on the subject quite clear when he said, 'I think I'm a bit too big to hit children.'

Mr Driver is an athletic six feet four inches, and his point may be taken quite literally. Throughout his teaching career, Mr Driver has no doubt had the size advantage and has never been in the position I have experienced more than once in which every pupil in the class was bigger than I. But even on such occasions, when those intimidating teenagers towered over me, the power invested in me by an education authority still made me bigger than them. I knew I was too big to hit my pupils. Nor was I ever tempted to do so, because it would (if only in my mind) have diminished my status as a teacher and labelled me as one who had failed to control a situation without using a very unfair advantage.

There are however plenty of teachers around, of all shapes and sizes, who still take advantage of the size given them by authority and subscribe to the old saying: 'Spare the rod, spoil the child.' Many teachers, even if they don't use corporal punishment themselves, still justify it as the ultimate deterrent, to be used as a last resort. Their support allows others to slap or beat children for even very trivial offences.

The Education Department claims that cases of teachers beating children are rare, and it is probably true the the children seldom report when they are beaten. But conversation with a few teachers confirms that

it is only the reporting of such cases is a rarity. The reports that we do see from time to time in the newspaper are probably the tip of the iceberg. Not so long ago there was a case of a teacher who savagely (the word is not too strong) beat a little girl whose father refused to sign her report card (Note, that the father was not beaten). Then there was the case of the teacher who cut off her pupil's stockings because wearing them was against the school regulations. She cut the girl's legs badly in the process. Or the little boy whose class was to count out loud as each slap was delivered. There may be extreme examples, but the fact that they occurred at all shows an acceptance of corporal punishment as part of classroom management.

The argument for and against corporal punishment are certainly older than the school system. Yet those in favour are still unable to produce any better argument than that 'it works'. If the aim is simply to teach blind obedience through fear, this may be true. Education, however, should be concerned with instilling the love of learning and the faculty of independent thinking, and it is hard to see how these qualities can be taught by physical intimidation.

The main remedy for problems of discipline is stimulating, purposeful lessons that arouse the natural desire of young people to learn. Those unable to teach interesting, order-producing lessons are in the wrong profession. They have failed as teachers, and hiding behind the power to hit children will not alter the fact. Moreover, the effect on children is positively harmful. The beaten children may well learn to exercise the same right of superior size and strength over a younger brother or sister, or later a weaker spouse. It is more than likely that the

acceptance of war and violence as a way of life begins as a cane in the hands of schoolteacher.

APPENDIX B

Comprehension Questions

Passage A (lower level)

1. The boy met the ghost
 - A. in the evening.
 - B. at midnight.
 - C. at daybreak.
 - D. in the morning.

2. The ghost suggested taking turns at carrying each other because
 - A. they were friends.
 - B. they had walked for a mile.
 - C. they walked on together.
 - D. the ghost felt tired.

3. The boy 'ghost' explained to the ghost that
 - A. he was too young to become light.
 - B. every new ghost was heavy.
 - C. he needed time to become light.
 - D. his body was too old to become light.

4. The boy persuaded the ghost to tell him the secret about what ghosts are most afraid of by
- A. saying that a new ghost should know everything.
 - B. pretending that he was too young to know everything.
 - C. remarking that ghosts were not afraid of anything.
 - D. saying that he was a new ghost and did not know much yet.
5. The boy quickly spat at the sheep because
- A. he wanted to get a hundred dollars for the sheep.
 - B. he saw many animals for sale in the market-place.
 - C. he was afraid that he would change into a sheep.
 - D. he wanted to stop it from becoming a ghost again.

Passage B (lower level)

1. The story is chiefly about how a
- A. boy lost his eyesight.
 - B. boy helped his father.
 - C. blind boy learned to swim.
 - C. blind boy saved a woman's life.
2. While rowing out towards the drowning woman, George was
- A. unafraid.
 - B. filled with fear.
 - C. thinking of the reward.
 - D. crying.

3. George for his simple and fearless deed.
- A. expected a reward B. was surprised to get a reward
C. refused a reward D. asked for a reward
4. The woman almost lost her life because she
- A. didn't know how to swim. B. was fearless.
C. had gone out to where the water was too deep for her.
D. cried for help.
5. The best title for this story is
- A. A Brave Deed. B. A Summer Afternoon.
C. A Grateful Woman. D. A Cheerful Crowd.

Passage C (lower level)

1. Angell belonged to
- A. some children. B. the city officers.
C. the circus. D. a star performer.
2. Which of the following was not part of the performance Angell's put
put on?
- A. Dancing. B. Playing dead.
C. Carrying a flag. D. Playing a trumpet.

2. Doctors recommended swimming because
- A. it is rewarding. B. it takes effort.
C. it takes time. D. it exercises the whole body.
3. Swimming is especially enjoyable
- A. in the sea. B. when one is floating.
C. in the hot summer. D. when one is tired.
4. According to the fourth paragraph the ability to swim may
- A. make a person ill. B. cause a person's death.
C. save a person's life. D. wreck a ship.
5. In the last paragraph the writer implies that
- A. if we know how to swim, we can help others.
B. if we swim often, we may easily drown.
C. swimming with friends is dangerous.
D. saving another's life will make one feel sad.

Passage A (middle level)

1. In the first two sentences, we learnt that
- A. some of Mr Chen's customers make mistakes.
B. Mr Chen thinks that his customers are always wrong.
C. Mr Chen doesn't always do what his customers want.
D. Most of Mr Chen's customers wear spectacles.

2. What is Mr Chen's rule?

- A. He must sell top quality goods.
- B. His goods must be cheap.
- C. His customers must not wear spectacles.
- D. He thinks hawkers have bad luck.

3. 'Other people, too, have learnt to keep his rule'. This means the customers

- A. do what Mr Chen wants.
- B. refuse to buy from Mr Chen.
- C. are offended by Mr Chen.
- D. refuse to take off their glasses.

4. How does Mr Chen treat people who wear spectacles?

- A. He tells them to take off their spectacles.
- B. He will not sell them anything.
- C. He charges them a higher price.
- D. He serves them.

5. The Sale of Goods Ordinance is a law which

- A. sometimes allows hawkers to refuse to sell.
- B. does not allow buyers to wear spectacles.
- C. does not allow sellers to refuse to sell.
- D. allows buyers to bargain.

6. The sign on Mr Chen's cart
- A. follows government regulations for hawkers.
 - B. brings him good luck.
 - C. obeys the rules of Consumer Council.
 - D. warns people wearing glasses.
7. Mr Chen 'can't be influenced by an offer of more money for his goods'.
This means that
- A. sometimes he sells at a higher price.
 - B. he lowers the price for people without glasses.
 - C. he can only serve people who pay more.
 - D. he will not sell to spectacle-wearers at any price.
8. Mr Chen does not sell to the following people:
- 1. those who wear glasses
 - 2. policemen
 - 3. those who want to buy at a cheaper price
 - 4. women who came with their husbands
 - 5. those who don't trust him
- A. 1,3 & 5 only
 - B. 1,2 & 4 only
 - C. 2,3 & 5 only
 - D. 3,4 & 5 only.

Passage B (middle level)

1. Sap
 - A. is a kind of stone.
 - B. comes from a tree.
 - C. is a plant.
 - D. is made of wood.

2. Amber
 - A. was not known to the Greeks.
 - B. was used to catch insects.
 - C. comes from sunshine.
 - D. is made of wood.

3. Which of the following statement is true?
 - A. Amber is quite different from elektron.
 - B. Sap comes from amber.
 - C. Amber comes from sap.
 - D. Elektron is not made from sap.

4. From the passage, we know that
 - A. hardened sap was called either amber or elektron.
 - B. the sea hardened the sap.
 - C. the Greeks picked up stones as well as amber.
 - D. only dead trees have sap.

5. According to the passage, when amber is rubbed

- A. it pulls small things towards it.
- B. it changes into elektron.
- C. it must be covered by a bit of cloth.
- D. it becomes very shiny.

6. The substance the Greeks called elektron

- A. was first found by Herrick.
- B. has been known for hundreds of years.
- C. is the same as lightening.
- D. is more valuable than amber.

7. According to the passage, static electricity

- A. is lightening.
- B. is caused by light objects.
- C. is caused by rubbing elektron.
- D. had always been known to the Greeks.

8. The 'mysterious force'

- A. was invented by William Gilbert.
- B. was completely unknown to Greeks.
- C. got its name from 'elektron'.
- D. produced static electricity when rubbed.

Passage A (advanced level)

1. According to Kenji Suzuki you can know what a person is like from.....
 - A. the appearance of his name-card.
 - B. the way he hands you his name-card.
 - C. the advice in Kenji Suzuki's books.
 - D. books that analyse a man's character.

2. Suzuki is concerned that Japanese men nowadays are
 - A. not strong enough.
 - B. too proud.
 - C. like Napoleon.
 - D. less prosperous.

3. In the second paragraph the writer of the passage implies that a major point about modern Japanese women is that they
 - A. are good wives and mothers.
 - B. don't have such good brains as men.
 - C. don't see themselves only as housewives.
 - D. are not very original thinkers.

4. An example of 'something larger' mentioned in paragraph 3 might be.....
 - A. a book which sells more copies.
 - B. someone with a great ambition.
 - C. a job with a higher salary.
 - D. the company the reader works for.

5. One of the things we were told employees are taught in some companies is to
- A. open doors properly.
 - B. bow humbly to the manager.
 - C. avoid attracting attention.
 - D. safeguard the company's secrets.
6. The reason why people like Suzuki's books on etiquette is that they want to
- A. teach young people to be independent.
 - B. improve young people's moral standards.
 - C. spread the new religions among the young.
 - D. raise the standard of living in Japan.
7. 'This fear' in paragraph 4 refers to the idea that
- A. Japanese fathers may lose their authority.
 - B. modern Japanese people are not polite enough.
 - C. young Japanese people are too spoiled to work hard.
 - D. opinion polls give an unfair view of young people.
8. What the writer finds surprising is that
- A. people are willing to publish Suzuki's books.
 - B. the moral of Suzuki's books is so clear.
 - C. women can understand Suzuki's books.
 - D. young women read Suzuki's books.

9. The explanation (paragraph 6) accounts for the fact that
- A. Japan became rich after losing the War.
 - B. young Japanese women have two opposite tendencies.
 - C. the death rate among young people was high in the 1960s.
 - D. new religions sprang up but did not last.
10. The reason why young women buy Suzuki's books is that they
- A. need greater independence.
 - B. are tired of traditional religion.
 - C. are seeking greater prosperity.
 - D. want to be more Japanese.
11. One of Suzuki's ideas that the writer finds evidence for is that
- A. the younger generation in Japan is less hard working and patriotic.
 - B. women are stronger in emotion than in intelligence.
 - C. it is important to present one's name-card correctly.
 - D. learning how to say 'Excuse me ' properly can increase business efficiency.

Passage B (advanced level)

1. In the second paragraph the writer says that he didn't want to use corporal punishment because
- A. his pupils were big.

- B. he is an unusually large man.
 - C. he would have been ashamed to.
 - D. the education authority forbade it.
2. The 'very unfair advantage' in paragraph 2 refers to the teacher's
- A. professional authority.
 - B. superior intelligence.
 - C. diminished status.
 - D. wide experience.
3. In the fourth paragraph the writer claims that in Hong Kong
- A. teachers seldom beat children.
 - B. reports of children being beaten are common.
 - C. cases of beating children are not often reported.
 - D. children sometimes deserve corporal punishment.
4. 'In the process' in paragraph 4 means
- A. as a result of cutting the girl's legs.
 - B. when she was cutting off the girl's stockings.
 - C. because the teacher was acting carelessly.
 - D. in accordance with the school regulations.
5. In the fourth paragraph the writer gives a number of examples of
- A. appropriate discipline.
 - B. disobedient students.
 - C. determined teachers.

D. cruel punishment.

6. The chief danger mentioned by the writer is that corporal punishment may
- A. teach children to use violence against those weaker than themselves.
 - B. be damaging to the children's mental and physical health.
 - C. frighten the child and may hinder his development.
 - D. result in dull, meaningless lessons that discourage learning.
7. The writer implies that those who use corporal punishment
- A. should seek help from the educational department.
 - B. would do better to talk to the parents.
 - C. ought not to be teachers.
 - D. have no problems of discipline.
8. According to the writer, the solution for the problems of discipline in the class is for the teacher to
- A. teach students obedience.
 - B. avoid using violence.
 - C. have more power.
 - D. produce more interesting lessons.
9. In paragraph 6, 'the fact' refers to the idea that
- A. beating is harmful.
 - B. they have power.

- C. they have failed.
- D. hiding is cowardly.

10. The writer believes that the corporal punishment

- A. is justified when all else fails.
- B. is both wrong and dangerous.
- C. is undesirable but effective.
- D. a good way to maintain discipline.

APPENDIX C

Answers to the Comprehension Questions

Comprehension Passages for Lower Level Subjects:

Passage A:

1. B 2. D 3. A 4. D 5. D

Passage B:

1. D 2. A 3. B 4. C 5. A

Passage C:

1. C 2. D 3. B 4. A 5. C

Passage D:

1. D 2. D 3. C 4. C 5. A

Comprehension Passages for Middle Level Subjects:

Passage A:

1. C 2. C 3. A 4. B 5. A 6. D 7. D 8. A

Passage B:

1. B 2. D 3. C 4. A 5. A 6. B 7. C 8. C

Comprehension Passages for Advanced Level Subjects:

Passage A:

1. B 2. A 3. C 4. D 5. A 6. B 7. C 8. D 9. B 10. D 11. A

Passage B:

1. C 2. A 3. C 4. B 5. D 6. A 7. C 8. D 9. C 10. B

APPENDIX D

Cloze Tests

1. Cloze Tests for Lower

Level Subjects:

A: John's _____ name is Smith. He works in _____ office near North Point. He works _____ nine o'clock in the _____ until five o'clock _____ the afternoon every day. In fact, he only works five days a _____. He doesn't go to work on Saturdays or Sundays.

Usually John has breakfast and dinner _____ home. He has _____ in a restaurant near his office. In the evening, he sometimes _____ to the radio or _____ television. Every night he goes to _____ early and goes to sleep at _____. He usually sleeps soundly all night.

B: My uncle Harry _____ lived in Canada _____ three years. When he first _____ to Canada, I usually wrote him at least one _____ every month but after the first year, I became lazy. Now, I usually _____ him only one _____ two _____ every year.

I _____ just finished writing uncle Harry. Mother _____ given me a stamp and I _____ now sticking it _____ the envelope. I have already _____ uncle Harry's _____ in Canada _____ the envelope and put the _____ inside so it is ready to post. I'm sure that uncle Harry will be pleased with me when he gets this letter.

Cloze Test for

Middle level Subjects:

I have recently taken _____ bird-watching as a _____. Despite the many tall _____ in Hong Kong, the _____ is in fact immensely _____ in bird life. Bird-watching _____ also be one of _____ cheapest of all hobbies, _____ there is no special _____ that you need.

When _____ go bird-watching, the _____ thing to remember is _____ to move suddenly when _____ are near a bird; _____ will simply frighten it _____. Sudden noise also scares _____ birds. Therefore, slow, steady _____ and being quiet are _____ important. Any surprise appearance _____ also be disturbing to _____ bird, so it is _____ to wear dull-coloured _____ which can more or _____ fit in with the _____.

To most people, the _____ important piece of equipment _____ a pair of binoculars. _____ it is more sensible _____ to buy them before _____ start; borrow a pair _____ you have got used to them and know what you want to buy.

Cloze Test for

Advanced Level Subjects:

People of the Western _____, particularly Americans, tend to _____ of time as something _____ in nature, something around _____ and from which we _____ escape; an ever present _____ of the environment, just _____ the air we breathe. _____ it might be experienced _____ any other way seems _____ and strange, a feeling _____ is rarely modified even _____ we begin to discover _____ very differently it is _____ by some other people. _____ the West itself certain _____ rank time much lower _____ overall importance than we - _____. In Mexico, for example, _____ throughout Latin America, time _____ treated rather casually, and _____ commonly hears the expression, 'What time?' Hora americana, hora mejicana.

_____ a rule, Americans think _____ time as a road _____ ribbon stretching into the _____, along which one progress. _____ road has segments or _____ which are to be _____ discrete. People who cannot _____ time are looked down _____ as impractical.

* The Original Words
in the Cloze Test:

Test for Lower Level:

A: first, an, from, morning, in, week, at, lunch, listens,
watches, bed, once

B: has, for, went, letter, write, or, letters, have has, am,
on, written, address, on, letter

Test for Middles Level:

up, hobby, buildings, place, rich, can, the, because,
equipment, you, first, not, you, you, away, the ,
movements, very, can, the , best, clothing, less,
background, most, is, But, not, you, until

Test for Advanced Level:

world, think, fixed, us, cannot, part, like, That, in,
unnatural, which, when, how, handled, Within,
cultures, in, do, as, is, one, as, of, or, future, This,
compartments, kept, schedule, upon

APPENDIX E

List of New Words:

1. For Lower Level Subjects

passage A:

1. ghost ---
2. means ---
3. spit ---
4. butcher ---

passage B:

1. handicap ---
2. lobster ---
3. splendid ---

passage C:

1. applause ---
2. trumpet at ---
3. meek ---
4. reluctance ---
5. obedience ---

passage D:

1. buffalo ---
2. muscle ---
3. plunge ---
4. wreck ---

For Middle Level Subjects:

passage A:

1. hawker ---

passage B:

1. decorative ---
2. crackle ---
3. static ---

For Advanced Level Subjects:

passage A:

1. etiquette ---
2. deterioration ---
3. instill ---
4. pamper ---

passage B:

1. corporal ---
2. intimidating ---
3. deterrent ---

APPENDIX F

Ways of giving different scores to
test questions for lower level subjects:

Passage C:

1. Angell belonged to (memory question, two points)
2. Which of the following was not part of the performance Angell's
put on? (comprehension question, three points)
3. The city officers advised the circus owner to put Angell to death
because (comprehension question, three points)
4. The circus owner was to let the little man into the cage. (vocabulary
question, one points)
5. The little man said that Angell would be gentle for a long time if
(memory question, two points)

Passage D:

1. Most animals except can swim the first time they go into the water.
(comprehension question, three points)
2. Doctors recommended swimming because (memory question, two
points)
3. Swimming is especially enjoyable(memory question, two points)

4. According to the fourth paragraph the ability to swim may ...
(comprehension question, three points)
5. In the last paragraph the writer implies that (comprehension questions, three points)

Passage A:

1. The boy met the ghost (memory question, two points)
2. The ghost suggested taking turns at carrying each other because
(memory questions, two points)
3. The boy 'ghost' explained to the ghost that (comprehension question, three points)
4. The boy persuaded the ghost to tell him the secret about what ghosts are most afraid of by (memory question, two points)
5. The boy quickly spat at the sheep,because (memory question, two points)

Passage B:

1. The story is chiefly about how a (comprehension question, three points)
2. While rowing out towards the drowning woman, George was(vocabulary question, one point)
3. George for his simple and fearless deed. (comprehension question, three points)

4. The woman almost lost her life because she (comprehension question, three points)
5. The best title for this story is (comprehension question, three points)

APPENDIX G

Table 1:
Scores of Lower Level Proficiency Subjects (Group AC)

Subject number	Comprehension Scores Passage AB/Passage CD		Compre- hension Total (-48)	Cloze Test (-54)	Overall Rank (comprehen- sion)	Overall Rank Cloze Test
	Total(24)	Total(-24) (Aloud)				
A1	17	20	37	43	5	6
A2	12	14	26	30	17	18
A3	22	15	37	38	5	12
A4	15	16	31	40	12	8
A5	20	17	37	44	5	5
C1	21	16	37	40	5	8
C2	14	16	30	48	14	1
C3	14	9	23	30	19	18
C4	12	16	28	32	16	17
C5	16	17	33	40	10	8
Averages (group AC)	<u>16.3</u>	15.6	31.9	38.5		
Percentage	67.9%	65%	66.4%	71.5%		

Table 2:
Scores of Lower Level Proficiency Subjects (Group BD)

Subject Number	Comprehension Scores		Compre- hension Total(-48)	Cloze Test (-54)	Overall Rank (comprehen- sion)	Overall Rank	
	Passage AB (Total-24)	Passage CD (Total-24) (aloud)				Cloze	Test
B1	20	20	40	42	2		7
B2	17	15	32	37	11		13
B3	21	17	38	40	3		8
B4	16	15	31	46	12		3
B5	21	20	41	45	1		4
D1	14	11	25	33	18		16
D2	16	18	34	36	9		14
D3	15	23	38	48	3		1
D4	5	8	13	28	20		20
D5	16	14	30	36	14		14
Averages (group BD)	16.1	<u>16.1</u>	32.2	<u>39.1</u>			
Percentage	67%	67%	67%	<u>72.4%</u>			

Table 3:
Combined Averages of the Scores

Comprehension Scores			Total Comprehension Scores	Cloze Test Scores	Combined Comprehension Averages for Reading Aloud and Silent Reading
Passage	AB	CD			
	aloud	aloud			Reading Aloud
	16.3	16.1	32.05	38.8	16.2
	silent	silent			Silent Reading
	16.1	15.6			15.85

Table 4:

Scores of Middle Level Proficiency Subjects (group AC)

Subject Number	Comprehension Scores Passage A / Passage B (Total-8) (Total-8) (aloud)		Compre- hension Total(-16)	Cloze Test (-60)	Overall Rank (comprehen- sion)	Overall Rank (cloze Test)
A1	3	3	6	24	17	19
A2	5	5	10	42	4	8
A3	2	4	6	28	17	18
A4	7	2	9	38	11	12
A5	5	6	11	52	3	1
C1	6	5	12	47	1	5
C2	5	5	10	42	4	7
C3	3	5	8	30	15	15
C4	4	6	10	43	4	7
C5	2	3	5	30	19	15
Averages (Group AC)	4.2	4.5	8.7	37.6		
Percentage	52.5%	56.25%	54.3%	62.6%		

Table 5:
Scores of Middle Level Proficiency Subjects (group BD)

Subject Number	Comprehension Passage A / (Total-8)	Scores Passage B (Total-8) (aloud)	Compre-hension Total (16)	Cloze Test Total (60)	Overall Rank (comprehen-sion)	Overall Rank (cloze test)
B1	5	5	10	44	4	6
B2	5	4	9	40	11	10
B3	5	5	10	50	4	2
B4	4	4	8	30	15	15
B5	6	3	9	35	11	14
D1	4	5	9	39	11	17
D2	6	4	10	48	4	3
D3	1	2	3	18	20	20
D4	5	5	10	36	4	13
D5	7	5	12	48	1	3
Averages (Group BD)	4.8	<u>4.2</u>	9	38		
Percentage	60%	52%	56.25%	63.3%		

Table 6: Combined Averages

Comprehension Passage A	Scores Passage B	Total Compreh-hension Scores	Cloze Test	Combined Comprehension Averages for Reading Aloud and Silent Reading
Aloud 4.2	Aloud 4.2	8.85	38.2	Aloud: 4.2
Silent 4.8	Silent 4.5			Silent: 4.65

Table 7:

Scores of Advanced Level Proficiency Subjects (group BD)

Subject Number	Comprehension Scores Passage A / Passage B (Total-11) (Total-10) (aloud)		Compre- hension Total(-21)	Cloze Test (-60)	Overall Rank (comprehen- sion)	Overall Rank (cloze test)
A1	4	7	11	44	5	5
A2	3	8	11	38	5	12
A3	3	6	9	40	11	8
A4	1	3	4	32	20	17
A5	5	4	9	45	11	3
C1	7	4	11	40	5	8
C2	6	5	11	37	5	13
C3	7	7	14	48	2	1
C4	5	8	13	42	3	7
C5	4	6	10	36	10	14
Averages (Group AC)	<u>4.5</u>	5.8	10.3	40.2		
Percentage	40.9%	58%	49.05%	67%		

Table 8:

Scores of Advanced Level Proficiency Subjects (group BD)

Subject Number	Comprehension Scores Passage A / Passage B (Total-11) (Total-10) (aloud)		Compre- hension Total(-21)	Cloze Test (60)	Overall Rank (comprehen- sion)	Overall Rank (cloze Test)
B1	5	4	9	35	11	14
B2	5	4	9	33	11	16
B3	7	4	11	43	5	6
B4	6	3	9	30	11	18
B5	4	5	9	46	11	3
D1	3	2	5	28	19	20
D2	4	8	12	40	3	8
D3	4	5	9	30	11	18
D4	9	9	18	48	1	1
D5	5	3	8	40	18	8
Averages (Group BC)	5.2	<u>4.7</u>	9.9	37.5		
Percentage	47.27%	47%	47.14%	62.5%		

Table 9

Combined Averages

Comprehension Score		Total Comprehe- hension Scores	Cloze Test Scores	Combined Averages for Reading Aloud and Silent Reading (Percentage)
Passage A	Passage B	10.1	38.85	
Aloud	Aloud			Reading Aloud: 43.95
4.5	4.7			
Silent	Silent			Silent Reading: 52.63
5.2	5.8			

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